II. Teaching Portfolio

RECURRENT TEACHING RESPONSIBILITIES - INTRAMURAL

A. Medical Education

Wake Forest University School of Medicine (2002-present)

Lectures

"Neurobiology of Alcoholism", Phase 2C 'Neuro' block; January & April 2006; April 2007-present; 1 contact hour each

Small Groups

• Basic & Clinical Science Problems I (Phase 1B), Fall-Spring 2003-2006, 50-54 contact hours/year; small group facilitator

Evaluator

 Standardized Patient Assessment (SPA), Part II May 2004-2008, 2-4 contact hours/year; evaluator

Texas A&M University Health Science Center (1997-2002)

Lectures

- Medical Pharmacology I/II (MPhm 923/924), Fall/Spring 1997-2002, 8-10 contact hours each year
 - Lectures
 - Cancer Chemotherapy
 - Antineoplastic Agents (2 lectures)
 - Inflammation Mediators (1-2 lectures)
 - Inflammatory Disease
 - Asthma
 - Non-narcotic\Narcotic Analgesics
 - Gastrointestinal Pharmacology
 - Anti-viral Medications.

Small Groups

- Medical Pharmacology I/II (MPhm 923/924) Small Group Sessions, Fall/Spring 1997-2002, 16 contact hours each year (4-4hr sessions)
 - Session leader/facilitator of clinical pharmacology cases
- Medical Humanities (MHum 911), Fall 1997 & 1998, 24 contact hours each year (2/wk)
 - Session facilitator for ethics in medicine case studies

Other

- Professionalism Development Hour on "Honesty in Medicine", November 1997, 1 contact hour
 - Panel member (Basic Sciences) for open discussions with 2nd year medical students

B. Graduate Education

Wake Forest University School of Medicine

Lectures

Molecular Neuroscience (NUSC 704)

• "Ionotropic and Metabotropic Neurotransmitter Receptor Structure and Function", Fall 2004, 1.5 contact hours

Introduction to Neuroscience (NUSC712)

- "Receptor Structure and Function", Fall 2005-present; 1.5 contact hours
- "Protein Synthesis and Trafficking", Fall 2004-present; 1.5 contact hours

Mammalian Physiology (BMES 600)

• "Introduction to Neurophysiology", Fall 2002 -2004, 1.5 contact hours each year

Cell and Molecular Physiology (PSPR701)

- "Experimental Approaches to Molecular Analysis", Fall 2005, 1 contact hour
- "The Cytoskeleton", Fall 2005-2007, 1 contact hour
- "Resting Membrane Potential and Passive Electrical Properties of Neurons", Fall 2007-present, 1.5 contact hour
- "Active Electrical Properties of Neurons", Fall 2007-present, 1.5 contact hour
- "Synaptic Modulation and Plasticity", Fall 2007-present, 1.5 contact hour

Neuropharmacology (PSPR703)

- "Synaptic Plasticity I & II", Spring 2003 & 2004, Fall 2004-present, 1.5 contact hours each lecture
- "Glutamate Receptor Pharmacology", Fall 2007-present, 3 contact hours

Integrated Physiology & Pharmacology (PSPR704)

• "Anti-viral Medications", Fall 2003, Spring 2005-2007, 1.5 contact each year

Course Director

- Cellular and Molecular Physiology (PSPR 701), Fall 2004-2006
- Cellular and Molecular Physiology (PSPR 701), Neuroscience Block Director, Fall 2007-present

Thesis and Examination Committees

- Erin Caulder, Ph.D. Committee, 2009-present (Advisor: Godwin, WFUSM)
- Elizabeth Burnett, Ph.D. Committee, 2009-present (Advisor: Friedman, WFUSM)
- Carson Dobrin, Ph.D. Committee, 2008-present (Advisor: Roberts, WFUSM)
- John Graef, Ph.D. Committee, 2007-present (Advisor: Godwin, WFUSM)
- Bethany Brookshire, Ph.D. Committee, 2006-present (Advisor: Jones, WFUSM)
- Yuval Silberman, Ph.D. Committee, 2006-2009 (Advisor: Weiner, WFUSM)
- Ashley Donahue, M.S. Committee, 2006 (Advisor: Sonntag, WFUSM)
- Anthony Payne, Ph.D. Committee, 2005-2006 (Advisor: Delbono, WFUSM)
- Tiffany Fisher, Ph.D. Committee & Chair, 2005-2006 (Advisor: Godwin, WFUSM)
- George Jiang, Ph.D. Committee, 2004-2006 (Advisor: Aschner, WFUSM/Vanderbilt)
- Erin Shannon, Ph.D. Committee, 2003-2005 (Advisor: Grant, WFUSM)
- Georgia Alexander, Ph.D. Committee, 2002-2005 (Advisor: Godwin, WFUSM)

<u>Other</u>

 NUSC 715 – Neuroscience Tutorial. Fall 2003, 1 contact hour; Seminar given to Neuroscience Program students entitled "Cellular & Molecular Adaptations of Amygdala Neurotransmitter Systems to Chronic Ethanol"

Texas A&M University Health Science Center

Lectures

- Molecular Mechanisms of Drug and Toxin Action I (MPhm 605). Fall 1999-2001, 7.5 contact hours each year
 - \circ Lectures
 - GI Pharmacology
 - Inflammatory Disease (2 lectures)
 - Cancer Chemotherapy (2 lecture)
- Molecular Mechanisms of Drug and Toxin Action III (MPhm 607). Spring 1997-2001, 15 contact hours each year
 - \circ Lectures
 - Glutamate Neurotransmission
 - AMPA/Kainate-type Glutamate Receptors (2 lectures)
 - NMDA-type Glutamate Receptors
 - Metabotropic Glutamate Receptors
 - Glycine Neurotransmission & Strychnine-sensitive Glycine Receptors
 - Physiological Pharmacology (MPhm 601). Spring 1999, 5 contact hours
 - Lectures
 - Receptor-Effector Coupling (1 lecture)
 - Modulation of ion channels by G protein-coupled receptors (3 lectures)
- Basic Medical Sciences II (MSci 602). Fall 1997, 3 contact hours
 - Lecture topics passive electrical properties of biological membranes; ionic basis for the action potential; voltage-gated ion channels.

Course Director

• Physiological Pharmacology (MPhm 601), Spring 1999

Thesis and Examination Committees

- Dustin Dubois, Ph.D. Committee, 2000-2004 (Advisor: Frye, MPHM)
- Karl Hochstein, Ph.D. Committee, 2001-2002 (Advisor: Brandt, MPHM)
- Jeffery Browning, Ph.D. Committee, 2000-2002 (Advisor: Frye/Hicks, MPHM)
- Jing Jiang, Ph.D. Committee, 2000-2002 (Advisor: Parrish, MPHM)
- Sun-Ho Han, Ph.D. Committee, 1999-2002 (Advisor: Griffith, MPHM)
- Andrew Diener, Ph.D. Committee as Graduate Council Representative, 1998-1999 (Advisor: Maxson, Mathematics)

C. Mentoring/Advising

WFUSM

Primary Trainees

• Tamara Spence, 2008-present, Graduate Student Advisor (Ph.D. program)

- Daniel Christian, 2007-present, Graduate Student Advisor (Ph.D. program)
- Marvin Diaz, 2004-2009, Graduate Student Advisor (Ph.D. program); Current Position – Postdoctoral Associate, Dept. Physiology & Pharmacology, Wake Forest University School of Medicine
- Dustin Dubois, Ph.D.; 2004-2006, PostDoctoral Advisor; Current Position Postdoctoral Associate, Dept. Neuroscience, Texas A&M Health Sciences
- Katy Lack, Ph.D., 2002-2008, Graduate Student Advisor (Ph.D. program); Current Position – Postdoctoral Associate, Dept. Physiology & Pharmacology, Wake Forest University School of Medicine
- David Mann, Summer 2005, Medical Student Research Project; Current Position Medical Intern

Lab Rotations/Secondary Trainees

- Katy Lack, Spring 2002, Graduate Student Rotation
- Donna Clark, Spring 2004, Bridge Program Student (Supervisor: J. Daunais Ph.D., Physiology & Pharmacology)
- Marvin Diaz, Spring 2004, Graduate Student Rotation
- Michael Wesley, Spring 2005, Graduate Student Rotation
- Daniel Christian, Spring 2007, Graduate Student Rotation
- Tamara Spence, Spring 2008, Graduate Student Rotation
- Rodrigo Espana, Ph.D., 2008-present, Junior Faculty Mentoring Committee Member
- Megan Waddell Trimnal, Fall 2008, Graduate Student Rotation

Texas A&M University Health Science Center

Primary Trainees

- Ki-Yoon Jung, Ph.D. (2002), PostDoctoral Advisor; Current Position Assistant Professor, Soonchunhyang University, South Korea
- Jeff Farroni, Ph.D. (1998-2002), Graduate Student Advisor; Current Position Research Associate, Pharmacogenomics Program, University of Texas at Houston Medical Center
- Shaleen Botting, M.S. (1997-2000), Graduate Student Advisor; Current Position Research Assistant, University of Texas Medical Branch, Galveston Texas
- Marisa Pulido (2001-2002), Graduate Student Advisor; Current Position PostDoctoral Associate, Univ. North Carolina Chapel Hill
- Matthew Pesek (2001-2002), Undergraduate Research Advisor; Current Position Medical Student, University Texas Health Science Center at Houston
- Shailendra Das (1999-2000), Undergraduate Research Advisor; Current Position Medical Student, University of North Texas Health Science Center

Lab Rotations/Secondary Trainees

- Dustin Dubois (1999), Graduate Student Research Rotation Advisor
- Sun-Ho Han (1998), Graduate Student Research Rotation Advisor

PERSONAL STATEMENT: EDUCATIONAL PHILOSOPHY AND GOALS

My extensive experience with graduate education has focused on training students to think independently and to creatively synthesize new questions from current knowledge. This has meant presenting an objective view of complex issues and integrating these issues with historical material. I believe this integration allows students to appreciate the rationale and context for current knowledge and can provide important indications of under-explored areas. In the classroom, this philosophy is best represented by encouraging students to explore the primary research or clinical literature and to integrate seemingly distinct instructional topics in novel ways. For medical students, this would include bringing up ethical or socio-economic issues during basic science lectures/small groups to provide a more 'person'-oriented context for scientific information and to encourage students' exploration of how these issues might affect treatment choices and clinical outcomes. For PhD students, this philosophy is best represented by my consistent emphasis on knowing the primary research literature and on the synthesis of new hypotheses as explanations for un-expected experimental results. In particular, PhD students in my lab are expected to make intellectual contributions to our research direction very early in their career and are ultimately expected to test hypotheses using several experimental approaches. This philosophy is consistent with my immediate goals of providing effective direct contributions to WFUSM medical and graduate/postgraduate education. In addition, I will strive to play an increasingly important role in developing and administering institutional education goals and programs to bring this philosophy to a broader audience.

LECTURES AND ORAL PRESENTATIONS

A. Invited Seminars (since 1997)

- 2009 Vanderbilt University School of Medicine, Nashville TN; "Anxiety-Alcohol Interactions: Amygdala GABA and Glutamate Signaling during Chronic Exposure and Withdrawal"
- 2007 Wake Forest University School of Medicine, Dept. Physiology & Pharmacology; "Alcohol Withdrawal and The Amygdala: Origins of the Anxious Synapse"
- 2004 National Institute on Alcohol Abuse and Alcoholism; "GABA(A) Receptor Adaptations to Chronic Ethanol Exposure: Insights from Rodent and Primate Models"
- 2003 Texas Tech University Health Sciences Center, Dept. Pharmacology & Neuroscience; "Cellular & Molecular Adaptations of Amygdala Neurotransmitter Systems to Chronic Ethanol: Insights from Rodent and Primate Models"
- 2001 Wake Forest University School of Medicine, Dept. Pharmacology & Physiology; "Chronic Ethanol, Anxiety, and Fearful Adaptations in the Amygdala"
- 1999 Baylor University, Dept. of Psychology, Waco TX; "Strychnine-sensitive glycine receptors in Limbic Forebrain"
- 1998 Texas A&M University Faculty of Neuroscience, College Station, TX; "G protein Promiscuity and the Single Metabotropic Glutamate Receptor"

B. Invited Oral Presentations at Meetings (since 1997)

• 2008 Research Society on Alcoholism Annual Meeting, Washington DC; ""GABA, Glutamate, and The Ethanol-Anxiety Interaction: Tipping the Balance with Chronic

Ethanol and Withdrawal"

- 2008 Alcoholism and Stress: A framework for future treatment strategies, Volterra Italy; "GABA, Glutamate, and The Ethanol-Anxiety Interaction: Tipping the Balance with Chronic Ethanol and Withdrawal"
- 2007 Research Society on Alcoholism Annual Meeting, Chicago IL; "Pre- and Postsynaptic Adaptations to Chronic Ethanol and Withdrawal at Rat Basolateral Amygdala Glutamatergic Synapses"
- 2002 The Amygdala In Brain Function: Basic & Clinical Approaches, New Academy of Sciences Conference, Galveston TX; "Effects of Chronic Alcohol Ingestion on Rat Lateral/Basolateral Amygdala Ligand-gated Chloride Channels"
- 2001 Research Society on Alcoholism Annual Meeting, Montreal Quebec; "Fearful Adaptations to Chronic Ethanol Exposure by Amygdala NMDA Receptors"

EXAMPLES OF INSTRUCTIONAL MATERIALS

A. Lecture Handouts

- See Attached Supplementary Material
- B. Syllabi
 - See Attached Supplementary Material

TEACHING ASSESSMENTS

- A. Trainee Reviews of Teaching
 - Letter Attached: Jeffery Farroni, Ph.D.
 - Example Evaluations
 - Representative Examples Attached from Medical and Graduate Education (WFUSM and TAMUHSC) in Supplementary Material

B. Peer Reviews of Teaching

 Representative Departmental Evaluations Attached from Texas A&M Univ. H.S.C. in Supplementary Material